

Remarks & Arguments

In the Office Action, the Examiner noted that Claims 1-20 are pending in the application, and that Claims 1-20 are rejected. By this amendment, Claims 1, 6, 7, 12, 14, 15 and 16 have been amended. The amendments to the claims do not add new matter to the application. The Examiner's rejections are traversed below.

*Rejections Under 35 U.S.C. 112, Second Paragraph*

Claim 6 stands rejected under 35 U.S.C. 112 as having insufficient antecedent basis for the limitation "determining a largest common substring from said Levenshtein distance matrix." Claim 6 as amended renders the antecedent rejection moot.

Claim 7 stands rejected under 35 U.S.C. 112 as being indefinite for failing to particular point out and distinctly claim the subject matter of the invention. Claim 7 as amended renders the indefinite rejection moot.

*Rejections Under 35 U.S.C. 101*

Claims 1-20 stands rejected under 35 U.S.C. 101 as claiming non-statutory subject matter - a mathematical formula. Applicants respectfully assert that the independent claims 1, 6 and 14 do not claim a mathematical formula, a computer that solely calculates a mathematical formula

or a computer disk that solely stores a mathematical formula. In particular, although Claim 1 for example recites indirectly one or more mathematical formulas, the claimed combination of elements involve application of the algorithms to determine the similarity between the set of characters in each string.

*Rejections Under 35 U.S.C. 103*

Claims 1-5 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick and U.S. Patent No. 6,240,409 to Aiken. Applicant respectfully traverses the rejection of Claims 1-5.

With regard to **Claim 1**, the Office refers to Aiken at col. 3, line 7, to support the assertion that Aiken teaches “determining a largest common substring.” The applicants respectfully disagree with the Office’s position, and suggest that the relied upon passages do not support the Office’s rejection. Instead, Aiken only discloses that “substrings common to the strings are identified.” Aiken does not mention a Levenshtein distance matrix for the strings. Aiken instead discloses identifying substrings common to the strings by a process that does not utilize a Levenshtein distance matrix.

Consequently, Aiken does not disclose “determining a largest common substring from said Levenshtein matrix.” Applicants therefore respectfully submit that Claim 1 is patentable over Kilpatrick in view of Aiken. Accordingly, Applicants request that the obviousness rejection of Claim 1 be withdrawn and that Claim 1 be allowed.

**Claim 2** is allowable by virtue of its dependency on respective base Claim 1, as well as the additional elements it recites. Furthermore, Applicants respectfully disagrees with the Office's position that Kilpatrick teaches that "determining a largest common substring from said Levenshtein distance matrix" includes "determining a longest diagonal of equal hamming distance of a lowest value" at Fig 5, Table 2, and col. 9, lines 31-35. Instead, Kilpatrick teaches calculating a Levenshtein matrix 600, Fig 6, for the strings "abcd" and "zabc" as described at col. 10, lines 1-24. Furthermore, Kilpatrick teaches determining a Levenshtein distance (e.g., "2") which is the value in the array element (5,5) (e.g., the upper right corner of the matrix). However, Kilpatrick does not disclose determining the longest diagonal in the Levenshtein matrix that contain equal hamming distances of a lowest value. For instance, nothing in Fig 6 or the written description of Kilpatrick refers to the four hamming distance values of "1" that form the longest diagonal in the Levenshtein matrix 600. Accordingly, Kilpatrick does not disclose "wherein determining a largest common substring from said Levenshtein distance matrix comprises determining **a longest diagonal of equal hamming distances of a lowest value.**" Applicant, therefore, also requests that the obviousness rejection of Claim 2 be withdrawn and that Claim 2 be allowed.

**Claims 3-5** are allowable by virtue of their dependency on respective base Claim 1, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the obviousness rejection of Claims 3-5 be withdrawn and that Claims 3-5 be allowed.

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Claims 6-20 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick and U.S. Patent Application No. 2003/0004716 to Haigh. Applicant respectfully traverses the rejection of Claims 6-20.

With regard to **Claim 6**, the Office refers to Haigh at Fig 6 and page 5, paragraphs 0053-0054, to support the assertion that Haigh teaches “determining a largest common substring.” The applicants respectfully disagree with the Office’s position, and suggest that the relied upon passages do not support the Office’s rejection. Instead, Haigh only discloses a longest common subsequence (LCS) technique and a keyword match function. Neither the LCS technique or keyword match function disclosed in Haigh involve a Levenshtein distance matrix. In fact, Aiken does not even mention a Levenshtein distance matrix.

Consequently, Aiken does not disclose “determining a largest common substring from said Levenshtein matrix.” Applicants therefore respectfully submit that Claim 6 is patentable over Kilpatrick in view of Haigh. Accordingly, Applicants request that the obviousness rejection of Claim 6 be withdrawn and that Claim 6 be allowed.

**Claims 7-13** are allowable by virtue of their dependency on respective base Claim 6, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the obviousness rejection of Claims 7-13 be withdrawn and that Claims 7-13 be allowed.

With regard to **Claim 14**, the Office refers to Haigh at Fig 6 and page 5, paragraphs 0053-0054, to support the assertion that Haigh teaches “determining a largest common substring.” The applicants respectfully disagree with the Office’s position, and suggest that the

relied upon passages do not support the Office's rejection. Instead, Haigh only discloses a longest common subsequence (LCS) technique and a keyword match function. Neither the LCS technique or keyword match function disclosed in Haigh involve a Levenshtein distance matrix. In fact, Aiken does not even mention a Levenshtein distance matrix.

Consequently, Aiken does not disclose "determining a largest common substring from said Levenshtein matrix." Applicants therefore respectfully submit that Claim 14 is patentable over Kilpatrick in view of Haigh. Accordingly, Applicants request that the obviousness rejection of Claim 14 be withdrawn and that Claim 14 be allowed.

**Claims 15-20** are allowable by virtue of their dependency on respective base Claim 14, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the obviousness rejection of Claims 15-20 be withdrawn and that Claims 15-20 be allowed.

#### Conclusion

For all the reasons advanced above, Applicants respectfully submit that the present application is in condition for allowance and that action is earnestly solicited. The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

The Commissioner is hereby authorized to charge any additional fees, which may be required for this amendment, or credit any overpayment, to Deposit Account 23-0085. In the event that an extension of time is required, or may be required in addition to that requested in a

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petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account 23-0085.

Respectfully submitted,

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